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**FORM PTO-1449  
INFORMATION DISCLOSURE STATEMENT BY APPLICANT(S)**

Docket No.: 3309R-0149  
Applicant: He Huang, et al.  
Title: SYSTEM AND METHOD FOR  
THERMAL MANAGEMENT

U.S. Serial No.: 10/657,299  
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Group Art Unit: 3746-1724

**U.S. PATENT DOCUMENTS**

| Examiner's Initials | Patent Number | Patent Date | Name                   | Class Subclass |
|---------------------|---------------|-------------|------------------------|----------------|
| RHS                 | 6,415,595     | 07/09/02    | Wilmot, Jr, et al.     | 60/39.07       |
| RHS                 | 5,337,553     | 08/16/94    | Barr                   | 60/39.02       |
| RHS                 | 5,313,790     | 05/24/94    | Barr                   | 60/267         |
| RHS                 | 4,505,124     | 03/19/85    | Mayer                  | 62/180         |
| RHS                 | 4,371,385     | 02/01/83    | Johnson                | 96/196         |
| RHS                 | 4,399,035     | 08/16/83    | Nohmi, et al.          | 210/500.23     |
| RHS                 | 4,516,984     | 05/14/85    | Warner, et al.         | 95/46          |
| RHS                 | 4,542,010     | 09/17/85    | Roman, et al.          | 423/579        |
| RHS                 | 4,602,923     | 07/29/86    | Bernstein              | 96/172         |
| RHS                 | 4,636,307     | 01/13/87    | Inoue, et al.          | 210/188        |
| RHS                 | 4,705,100     | 11/10/87    | Black, et al.          | 165/202        |
| RHS                 | 4,729,773     | 03/08/88    | Shirato, et al.        | 96/6           |
| RHS                 | 4,751,104     | 06/14/88    | Kulprathipanja, et al. | 427/565        |
| RHS                 | 4,776,536     | 10/11/88    | Hudson, et al.         | 244/135R       |
| RHS                 | 4,919,856     | 04/24/90    | Anazawa, et al.        | 264/413        |
| RHS                 | 4,955,992     | 09/11/90    | Goodale, et al.        | 96/197         |
| RHS                 | 5,053,060     | 10/01/91    | Kopf-Sill, et al.      | 95/46          |
| RHS                 | 5,078,755     | 01/07/92    | Tozawa, et al.         | 95/46          |
| RHS                 | 5,090,971     | 02/25/92    | Barbier                | 95/45          |
| RHS                 | 5,123,937     | 06/23/92    | Shibata, et al.        | 95/46          |
| RHS                 | 5,154,832     | 10/13/92    | Yamamura, et al.       | 210/640        |
| RHS                 | 5,250,184     | 10/05/93    | Maier                  | 210/653        |
| RHS                 | 5,340,384     | 08/23/94    | Sims                   | 96/6           |
| RHS                 | 5,363,641     | 11/15/94    | Dixon, et al.          | 60/778         |
| RHS                 | 5,410,052     | 04/25/95    | Smith, et al.          | 544/224        |
| RHS                 | 5,482,860     | 01/09/96    | Copeland, et al.       | 435/293.1      |
| RHS                 | 5,507,150     | 04/16/96    | Weber, et al.          | 62/100         |
| RHS                 | 5,522,917     | 06/04/96    | Honda, et al.          | 95/46          |
| RHS                 | 5,575,910     | 11/19/96    | Karbachs, et al.       | 210/321.75     |
| RHS                 | 5,619,956     | 04/15/97    | Koziara, et al.        | 123/41.31      |
| RHS                 | 5,637,544     | 06/10/97    | Shadman                | 502/4          |

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|     |             |          |                     |            |
|-----|-------------|----------|---------------------|------------|
| RHS | 5,693,122   | 12/02/97 | Berndt              | 96/6       |
| RHS | 5,695,545   | 12/09/97 | Cho, et al.         | 95/46      |
| RHS | 5,725,611   | 03/10/98 | Wright, et al.      | 44/375     |
| RHS | 5,725,756   | 03/10/98 | Subramaniam, et al. | 208/48R    |
| RHS | 5,743,110   | 04/28/98 | Laude-Bousquet      | 62/434     |
| RHS | 5,788,742   | 08/04/98 | Sugimoto, et al.    | 95/46      |
| RHS | 5,888,275   | 03/30/99 | Hamasaki, et al.    | 96/6       |
| RHS | 5,902,382   | 05/11/99 | Campain, et al.     | 96/161     |
| RHS | 5,902,747   | 05/11/99 | Nemser, et al.      | 435/325    |
| RHS | 6,036,780   | 03/14/00 | Helm, et al.        | 118/713    |
| RHS | 6,105,370   | 08/22/00 | Weber               | 60/733     |
| RHS | 6,106,591   | 08/22/00 | Keskar, et al.      | 95/54      |
| RHS | 20010035093 | 11/01/01 | Yokota              | 96/8       |
| RHS | 20020020666 | 02/21/02 | Cote, et al.        | 210/605    |
| RHS | 20020045076 | 04/18/02 | Dieckmann, et al.   | 429/17     |
| RHS | 20020195385 | 12/26/02 | Cho, et al.         | 210/321.83 |
| RHS | 20030000131 | 01/02/03 | Henry, et al.       | 44/437     |
| RHS | 20030110947 | 06/19/03 | Kita, et al.        | 96/4       |
| RHS | 20030116015 | 06/26/03 | Sengupta, et al.    | 95/46      |
| RHS | 20030116491 | 06/26/03 | Yamazaki, et al.    | 210/188    |
| RHS | 20030116678 | 06/26/03 | Gardner             | 244/117A   |
| RHS | 20030129108 | 07/10/03 | Burch, et al.       | 422/188    |
| RHS | 6,168,648   | 01/02/01 | Ootani, et al.      | 95/46      |
| RHS | 6,176,903   | 01/23/01 | Wamsiedler          | 96/208     |
| RHS | 6,182,435   | 02/06/01 | Niggemann, et al.   | 60/772     |
| RHS | 6,209,794   | 04/03/01 | Webster, et al.     | 236/94     |
| RHS | 6,228,146   | 05/08/01 | Kuespert            | 95/46      |
| RHS | 6,258,154   | 07/10/01 | Berndt, et al.      | 96/6       |
| RHS | 6,305,156   | 10/23/01 | Lui                 | 60/785     |
| RHS | 6,309,444   | 10/30/01 | Sims, et al.        | 95/46      |
| RHS | 6,315,815   | 11/13/01 | Spadaccini, et al.  | 95/46      |
| RHS | 6,330,825   | 12/18/01 | Harness, et al.     | 73/118.1   |
| RHS | 6,357,237   | 03/19/02 | Candy, et al.       | 60/737     |
| RHS | 6,379,796   | 04/30/02 | Uenishi, et al.     | 428/398    |
| RHS | 6,402,810   | 06/11/02 | Mayer, et al.       | 95/46      |
| RHS | 6,402,818   | 06/11/02 | Sengupta            | 96/6       |
| RHS | 6,415,595   | 07/09/02 | Wilmot, Jr., et al. | 60/785     |
| RHS | 6,471,869   | 10/29/02 | Yanou, et al.       | 210/651    |
| RHS | 6,537,514   | 03/25/03 | Prasad, et al.      | 423/437.1  |
| RHS | 6,582,496   | 06/24/03 | Cheng, et al.       | 95/46      |
| RHS | 6,494,938   | 12/17/02 | Sims, et al.        | 96/6       |

**FOREIGN PATENT DOCUMENTS**

| <u>Examiner's Initials</u> | <u>Document Number</u> | <u>Date</u> | <u>Country</u> | Translation<br><u>Yes</u> <u>No</u> |
|----------------------------|------------------------|-------------|----------------|-------------------------------------|
| RHS                        | 0356177                | 02-28-1990  | EP             | Abstract                            |
| RHS                        | 0493869                | 07-08-1992  | EP             | Abstract                            |
| RHS                        | 0583748                | 02-23-1994  | EP             | Abstract                            |
| RHS                        | 0622475                | 11-02-1994  | EP             | Abstract                            |
| RHS                        | 0796649                | 09-24-1997  | EP             | Abstract                            |
| RHS                        | 0970738                | 01-12-2000  | EP             | Abstract                            |
| RHS                        | 1018353                | 07-12-2000  | EP             | Abstract                            |
| RHS                        | 1052011                | 11-15-2000  | EP             | Abstract                            |
| RHS                        | 1210971                | 06-05-2002  | EP             | Abstract                            |
| RHS                        | 0276789                | 08-03-1988  | EP             | Abstract                            |
| RHS                        | 0354797                | 02-14-1990  | EP             | Abstract                            |
| RHS                        | 1095691                | 05-02-2001  | EP             | Abstract                            |
| RHS                        | 1166859                | 01-02-2002  | EP             | Abstract                            |
| RHS                        | 1239189                | 09-11-2002  | EP             | Abstract                            |
| RHS                        | 1270063                | 01-02-2003  | EP             | Abstract                            |
| RHS                        | 1277504                | 01-22-2003  | EP             | Abstract                            |
| RHS                        | 1329617                | 07-23-2003  | EP             | Abstract                            |
| RHS                        | 0273267                | 07-06-1988  | EP             | Abstract                            |
| RHS                        | 0305787                | 03-08-1989  | EP             | Abstract                            |
| RHS                        | 0460512                | 12-11-1991  | EP             | Abstract                            |
| RHS                        | 0492801                | 07-01-1992  | EP             | Abstract                            |
| RHS                        | 0552090                | 07-21-1993  | EP             | Abstract                            |
| RHS                        | 0576677                | 01-05-1994  | EP             | Abstract                            |
| RHS                        | 0747112                | 12-11-1996  | EP             | Abstract                            |
| RHS                        | 0750322                | 12-27-1996  | EP             | Abstract                            |
| RHS                        | 0916835                | 05-19-1999  | EP             | Abstract                            |
| RHS                        | 0963229                | 09-10-2002  | EP             | Abstract                            |
| RHS                        | JP3038231              | 02-19-1991  | JP             | Abstract                            |
| RHS                        | JP3154686              | 07-02-1991  | JP             | Abstract                            |
| RHS                        | JP3169304              | 07-23-1991  | JP             | Abstract                            |
| RHS                        | JP3193106              | 08-22-1991  | JP             | Abstract                            |
| RHS                        | JP4036178              | 02-06-1992  | JP             | Abstract                            |
| RHS                        | JP4118004              | 04-20-1992  | JP             | Abstract                            |
| RHS                        | JP4250830              | 09-07-1992  | JP             | Abstract                            |
| RHS                        | JP5084474              | 04-06-1993  | JP             | Abstract                            |
| RHS                        | JP5317605              | 12-03-1993  | JP             | Abstract                            |
| RHS                        | JP6121902              | 05-06-1994  | JP             | Abstract                            |
| RHS                        | JP6121920              | 05-06-1994  | JP             | Abstract                            |
| RHS                        | JP7080205              | 03-28-1995  | JP             | Abstract                            |
| RHS                        | JP7227504              | 08-29-1995  | JP             | Abstract                            |
| RHS                        | JP8000906              | 01-09-1996  | JP             | Abstract                            |

|     |              |            |    |          |
|-----|--------------|------------|----|----------|
| RHS | JP8290044    | 11-05-1996 | JP | Abstract |
| RHS | JP8332306    | 12-17-1996 | JP | Abstract |
| RHS | JP10028805   | 02-03-1998 | JP | Abstract |
| RHS | JP10165936   | 06-23-1998 | JP | Abstract |
| RHS | JP10174803   | 06-30-1998 | JP | Abstract |
| RHS | JP10216404   | 10-03-2000 | JP | Abstract |
| RHS | JP11009902   | 01-19-1999 | JP | Abstract |
| RHS | JP11033373   | 02-09-1999 | JP | Abstract |
| RHS | JP11114308   | 04-27-1999 | JP | Abstract |
| RHS | JP11114309   | 04-27-1999 | JP | Abstract |
| RHS | JP11244607   | 09-14-1999 | JP | Abstract |
| RHS | JP11342304   | 12-14-1999 | JP | Abstract |
| RHS | JP2000051606 | 02-22-2000 | JP | Abstract |
| RHS | JP2000084368 | 03-28-2000 | JP | Abstract |
| RHS | JP2000117068 | 04-25-2000 | JP | Abstract |
| RHS | JP2000140505 | 05-23-2000 | JP | Abstract |
| RHS | JP2000262871 | 09-26-2000 | JP | Abstract |
| RHS | JP2000288366 | 10-17-2000 | JP | Abstract |
| RHS | JP2000350902 | 12-19-2000 | JP | Abstract |
| RHS | JP2000354857 | 12-26-2000 | JP | Abstract |
| RHS | JP2001286702 | 10-16-2001 | JP | Abstract |
| RHS | JP2002370006 | 12-24-2002 | JP | Abstract |
| RHS | JP2003010604 | 01-14-2003 | JP | Abstract |
| RHS | JP2003062403 | 03-04-2003 | JP | Abstract |
| RHS | JP2003094687 | 04-03-2003 | JP | Abstract |
| RHS | JP63151307   | 06-23-1988 | JP | Abstract |
| RHS | WO0044479    | 08-03-2000 | WO | Abstract |
| RHS | WO02062446   | 08-15-2002 | WO | Abstract |
| RHS | WO03036747   | 05-01-2003 | WO | Abstract |
| RHS | WO9416800    | 08-04-1994 | WO | Abstract |
| RHS | WO9601683    | 07-18-2000 | WO | Abstract |
| RHS | WO9702190    | 01-10-1997 | WO | Abstract |
| RHS | WO9728891    | 06-13-2000 | WO | Abstract |
| RHS | WO9844255    | 10-08-1998 | WO | Abstract |
| RHS | WO9939811    | 02-10-1998 | WO | Abstract |
| RHS | WO0044482    | 08-03-2000 | WO | Abstract |
| RHS | WO02059987   | 08-01-2002 | WO | Abstract |
| RHS | WO02077130   | 10-03-2002 | WO | Abstract |
| RHS | WO03029744   | 04-10-2003 | WO | Abstract |

**OTHER DOCUMENTS**

Examiner's  
Initials

PBS

Air Force Research Laboratory, Monthly Accomplishment Report (PROPULSION DIRECTORATE) March 2003, \ pps. 1-8

PBS

Air Force Wright Aeronautical Laboratories, Interim Report for March 1987-July 1988, i-vi, pps. 1-22

EXAMINER

DATE CONSIDERED

Robert H. Spitzer

November 22, 2004

**EXAMINER:**

Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).